

Notice of Allowability

Application No.

09/625,893

Examiner

Katherine W. Mitchell

Applicant(s)

ALLEN ET AL.

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7/21/2005.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☒ The drawings filed on 25 January 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6/24/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20050809
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

Continued Examination Under 37 CFR 1.114

1. The request filed on 7/21/2005 for a Request for Continuing Examination (RCE) under 37 CFR 1.114 is acceptable and an RCE has been established. Any previous finality is hereby withdrawn and a new action on the merits follows. Any newly-submitted claims have been added. The Declaration has been entered and considered. An action on the RCE follows.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in telephone interviews with William Hickman on first two weeks of August 2005 and finalized on 8/16/2005.

The application has been amended as follows:

In the Claims:

Claim 1, line 3, "consisting of" has been deleted and --having-- has been inserted in its place.

Claim 1, line 3, "a K/D" has been deleted and --an average K/D-- has been inserted in its place.

Claim 1, line 4, " 1.0×10^{-4} " has been deleted and -- 8.0×10^{-5} -- has been inserted in its place.

Claim 2, line 3, "consisting of" has been deleted and --having-- has been inserted in its place.

Claim 2, line 3, "a K/D" has been deleted and --an average K/D-- has been inserted in its place.

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Claim 2, line 4, " 1.0×10^{-4} " has been deleted and $-8.0 \times 10^{-5}-$ has been inserted in its place.

Claim 3, line 4, "consisting of" has been deleted and --having-- has been inserted in its place.

Claim 3, line 4, "a K/D" has been deleted and --an average K/D-- has been inserted in its place.

Claim 3 line 4, " 1.0×10^{-4} " has been deleted and $-8.0 \times 10^{-5}-$ has been inserted in its place.

Claim 4, line 3, "consisting of" has been deleted and --having-- has been inserted in its place.

Claim 4, line 4, "a K/D" has been deleted and --an average K/D-- has been inserted in its place.

Claim 4 line 4, " 1.0×10^{-4} " has been deleted and $-8.0 \times 10^{-5}-$ has been inserted in its place.

Claim 5, line 3, "consisting of" has been deleted and --having-- has been inserted in its place.

Claim 5, line 4, "a K/D" has been deleted and --an average K/D-- has been inserted in its place.

Claim 5 line 4, " 1.0×10^{-4} " has been deleted and $-8.0 \times 10^{-5}-$ has been inserted in its place.

Claim 6, line 3, "consisting of" has been deleted and --having-- has been inserted in its place.

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Claim 6, line 4, "a K/D" has been deleted and --an average K/D-- has been inserted in its place.

Claim 6 line 5, " 1.0×10^{-4} " has been deleted and -- 8.0×10^{-5} -- has been inserted in its place.

4. The following is an examiner's statement of reasons for allowance: The closest prior art of record is the Allen paper, applied in previous office actions. However, the Allen paper discloses a method and system wherein a single PVC pipe has samples taken with k/D average values ranging from 8.86×10^{-5} to 1.09×10^{-4} , and a single ABS pipe with k/D values 1.21×10^{-4} to 1.51×10^{-4} . However, no pipe was tested which had k/D values consisting of 8.0×10^{-5} or less, as now claimed. Further, the Allen paper's pipes without a strongback were found to increase VIV and drag, the opposite of the claimed invention, and thus there would be no motivation to lower the k/D value even further, since it appeared to provide no reduction. Subsequent Affidavits by the author of the Allen paper, Dr. Allen, have clarified that it was the existence of statistically large numbers (40% in the Allen paper) of k/D values over 1×10^{-4} that account for the increase in VIV and drag, so that even though a single pipe may have areas, and even an average, in the desired k/D range of 1.0×10^{-4} , the regions of k/D over 1×10^{-4} negate the benefits. Thus the Allen paper does not teach a method or system with a smooth marine element having a surface consisting of k/D of 8.0×10^{-5} or less, since it had significant areas (40%) over the 1×10^{-4} target. However, the specification as originally filed did not provide enough support to allow a claim with limitations clarifying the amount or even existence of variations of the value of k/D, but the amendment to k/D of 8.0×10^{-5} or less is not taught in the Allen paper, and this explanation by examiner is provided to explain why the apparent contradiction is not contradictory.

5. Examiner notes that ultrasMOOTH surfaces, without a specific range of K/D values, on items including drugs, electrodes, and films was found, but the system has to include a cylindrical marine element that is capable of reducing VIV and drag, and these are not considered marine elements subjected to VIV and drag.

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6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

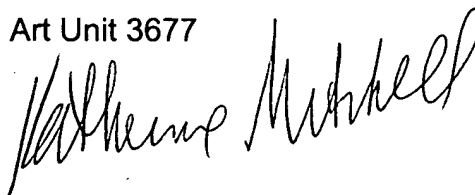
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell

Examiner

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A handwritten signature in black ink, appearing to read "Katherine W. Mitchell", written in a cursive style.

Kwm

8/16/2005